

LENGTH DATA

EXCEPTIONS

NONE

EQUATIONS

NONE

STATE OF MISSISSIPPI

OFFICE OF STATE AID ROAD CONSTRUCTION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

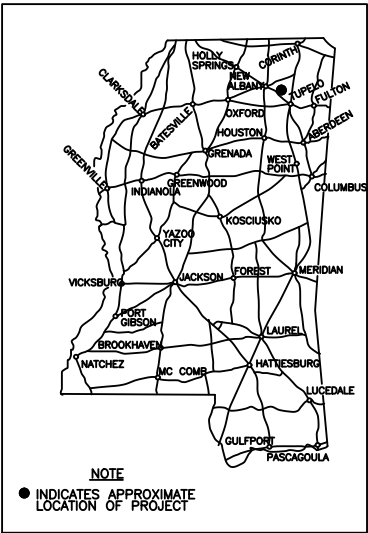
COUNTY HIGHWAY

STATE AID PROJECT NO. SAP-84(1)

COUNTY ROAD NAME

MISSISSIPPI COUNTY

INDEX
FOR INDEX SEE SHEET NO. 2



LENGTH OF ROADWAY	7666.00	FT	1.451	MI
LENGTH OF BRIDGES	160.00	FT	0.030	MI
LENGTH OF PROJECT (NET)			1.481	MI
LENGTH OF EXCEPTIONS	0.00	FT	0.000	MI
LENGTH OF PROJECT (GROSS)			1.481	MI

BRIDGE NUMBER SA84-103
BRIDGE NUMBER SA84-104

SCALES

PLAN	1	IN.	=	100	FT.
PROFILE- HORIZ.	1	IN.	=	100	FT.
VERT.	1	IN.	=	10	FT.
LAYOUT	1	IN.	=	1000	FT.

STA. 208+33 BEGINNING OF PROJECT

STA. 286+59 END OF PROJECT

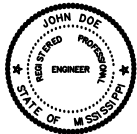
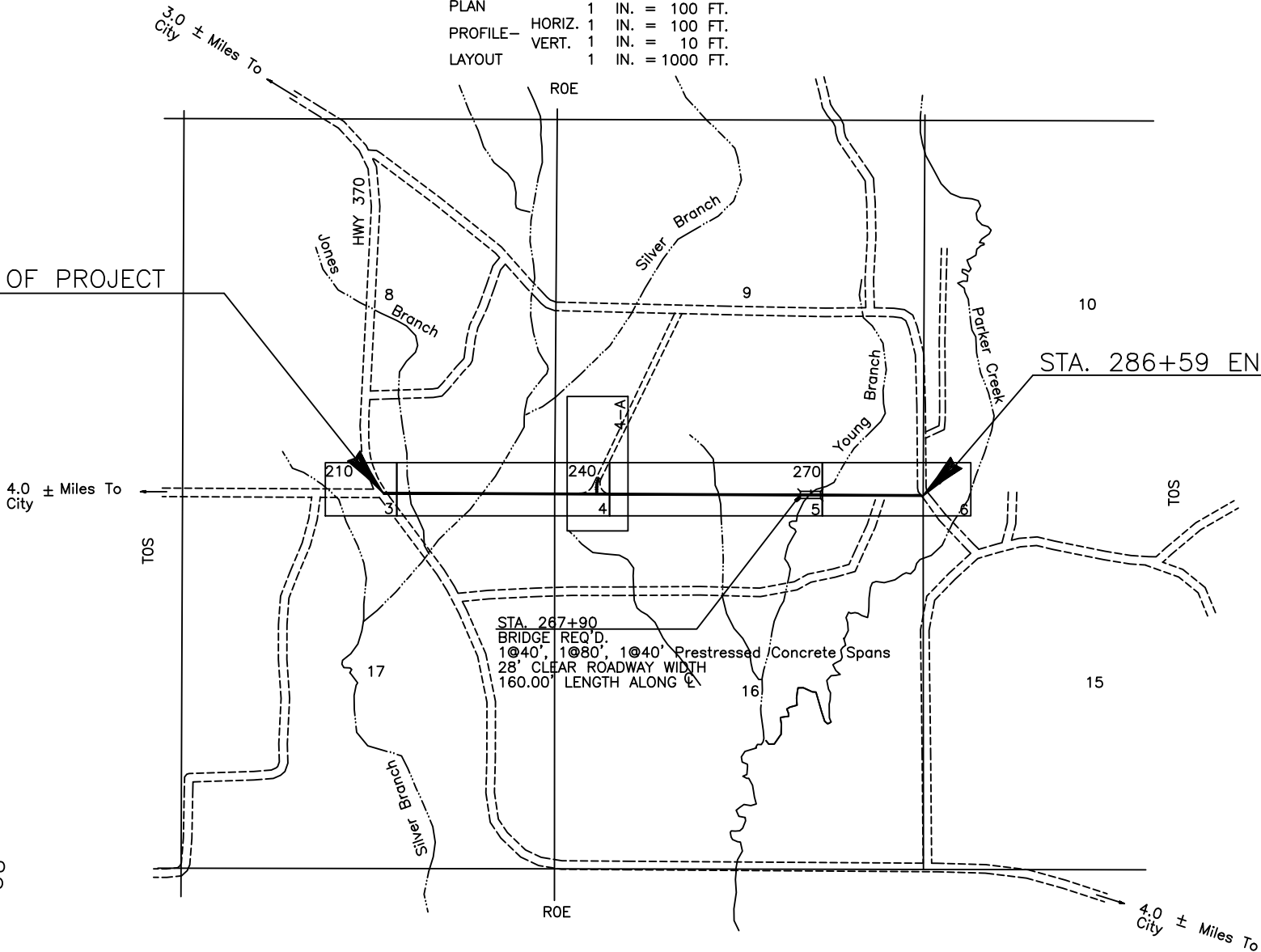
NOTE TO DESIGNER:

SAMPLE PLAN DATA

Type of Project: Grade, Drain, Base, and Surfacing
Date: October 2011

Notes To Designer are in italics throughout these sample plans and should not be included in project plans.





MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION CURRENTLY APPROVED BY THE OFFICE OF STATE AID ROAD CONSTRUCTION OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION ARE MADE A PART HEREOF FULLY AND COMPLETELY AS IF ATTACHED HERETO, EXCEPT WHERE SUPERSEDED BY THE SPECIAL PROVISIONS, OR AMENDED BY REVISIONS



PREPARED BY _____
COUNTY ENGINEER DATE

OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
APPROVED
STATE AID ENGINEER _____
DATE

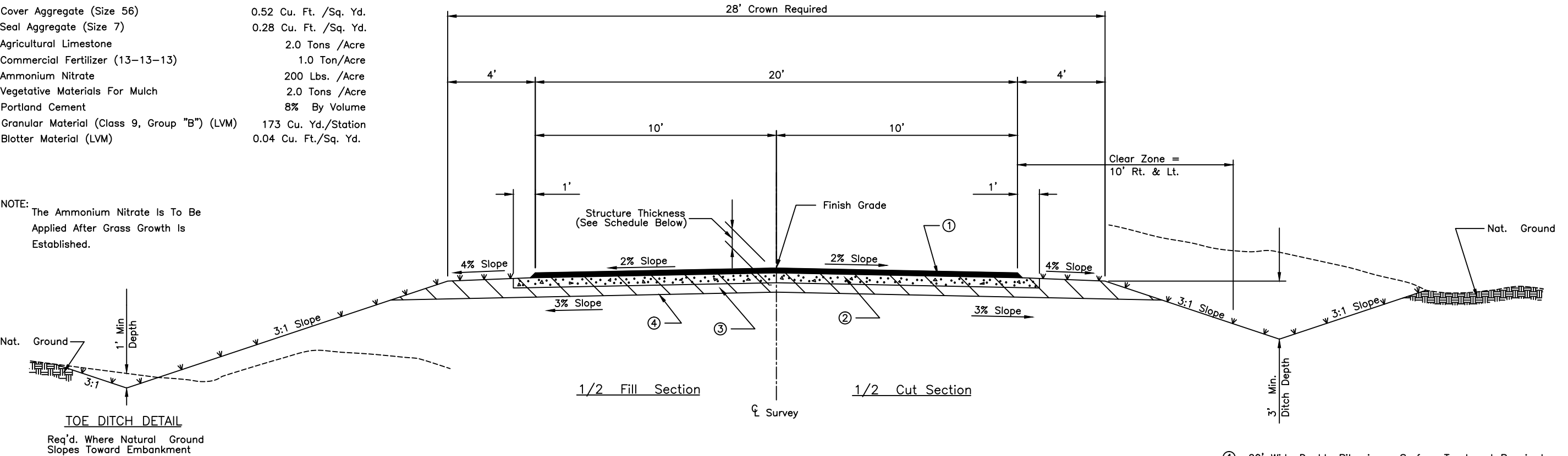
SUMMARY OF QUANTITIES				
PAY ITEM NO.	PAY ITEM	TOTAL QUANTITY		UNIT
	ROADWAY ITEMS	PLAN	FINAL	
S-200-A	Mobilization	Lump Sum		Lump Sum
S-201-A	Clearing And Grubbing	Lump Sum		Lump Sum
S-202-B	Removal Of Bridge (Sta. 222+84)	1.0		Unit
S-202-B	Removal Of Bridge (Sta. 268+28)	1.0		Unit
S-203-A	Unclassified Excavation (FM)	23,095		Cu. Yd.
	BASE AND SUSRFACING ITEMS			
	ALTERNATE NO. 1			
S-304-A	Granular Material (LVM) (Class 4, Group B)	377		Cu. Yd.
S-304-A	Granular Material (LVM) (Class 9, Group B)	14,596		Cu. Yd.
S-308-A-1	Portland Cement	7,096		CWT
S-308-B-1	Soil-Cement-Water Mixing (Multiple Pass Mixers)	21,971		Sq. Yd.
S-410-C-1	Polymeriized-Emulsified Asphalt, Grade CRS-2P	17,171		Gal.
S-410-D	Coarse Aggregate Cover Material, Size 56, Type Crushed Stone	368		Cu. Yd.
S-410-E	Seal Aggregate Cover Material, Size 7, Type Crushed Stone	198		Cu. Yd.
S-410-F	Blotter Material	28		Cu. Yd.
	ALTERNATE NO. 2			
S-304-A	Granular Material (LVM) (Class 4, Group B)	20,144		Cu. Yd.
S-310-D	Mixing, Shaping, and Compaction	21,971		Sq. Yd.
S-408-A	Asphalt For Prime Coat (AE-P)	7,340		Gal.
S-410-C-1	Polymeriized-Emulsified Asphalt, Grade CRS-2P	17,171		Gal.
S-410-D	Coarse Aggregate Cover Material, Size 5, Type Crushed Stone	368		Cu. Yd.
S-410-E	Seal Aggregate Cover Material, Size 7, Type Crushed Stone	198		Cu. Yd.
S-410-F	Blotter Material	28		Cu. Yd.
	ROADWAY ITEMS (continued)			
S-601-A	Class B Structural Concrete	183.80		Cu. Yd.
S-601-B	Class B Structural Concrete, Minor Structures	2.41		Cu. Yd.
S-602-A	Reinforcing Steel	26,015		Lb.
S-603-C-A	15" Reinforced Concrete Pipe, Class III	224		Lin. Ft.
S-603-C-A	18" Reinforced Concrete Pipe, Class III	200		Lin. Ft.
S-603-C-A	24" Reinforced Concrete Pipe, Class III	272		Lin. Ft.
S-603-C-A	48" Reinforced Concrete Pipe, Class III	48		Lin. Ft.
S-603-C-B	18" Reinforced Concrete Pipe, End Section	3		Each
S-603-C-B	24" Reinforced Concrete Pipe, End Section	4		Each
S-603-C-B	48" Reinforced Concrete Pipe, End Section	2		Each
S-603-C-D	73" x 45" Reinforced Concrete Arch Pipe, Class III	56		Lin. Ft.
S-603-C-D	88" x 54" Reinforced Concrete Arch Pipe, Class III	56		Lin. Ft.
S-603-C-E	73" x 45" Reinforced Concrete Arch Pipe, End Section	2		Each
S-603-C-E	88" x 54" Reinforced Concrete Arch Pipe, End Section	2		Each
S-606-B	Guardrail, W-Beam	50.0		Lin. Ft.
S-606-D	Guardrail, Bridge End Section, Type "I" Thrie-Beam	4		Each
S-606-E	Guardrail, Terminal End Section	4		Each
S-617-A	Right-Of-Way Markers (I)	49		Each
S-618-A	Maintenance Of Traffic	Lump Sum		Lump Sum
S-618-B	Additional Construction Signs	0.0		Sq. Ft.
S-619-B	4" Wide Traffic Stripe (Skip Yellow)	1.328		Mi.
S-619-C	4" Wide Traffic Stripe (Continuous White)	16,677		Lin. Ft.
S-619-D	4" Wide Traffic Stripe (Continuous Yellow)	4,913		Lin. Ft.
S-619-F	Detail Traffic Stripe	228.0		Lin. Ft.
S-630-A	Reflectorized Traffic Warning Sign (Encapsulated Lens)	11		Each
S-630-B	Reflectorized Traffic Regulatory Sign (Encapsulated Lens)	4		Each
S-630-C	Reflectorized Traffic Object Marker (Encapsulated Lens) (Type 3)	4		Each
S-815-A	Loose Riprap, 200 lb.	50		Ton

SUMMARY OF QUANTITIES				
PAY ITEM NO.	PAY ITEM	TOTAL QUANTITY		UNIT
		PLAN	FINAL	
EROSION CONTROL ITEMS				
901-S-212-A	Agricultural Limestone	20		Ton
S-212-B	Commercial Fertilizer (13-13-13)	10		Ton
S-212-F	Ammonium Nitrate	1		Ton
S-214-A	Seeding	10		Acre
S-215-A	Vegetative Materials For Mulch	20		Ton
① S-226-A	Solid Sodding	372		Sq. Yd.
S-229-A	Portland Cement Concrete Paved Ditch	16.20		Cu. Yd.
S-233-A	Temporary Silt Fence	6080		Lin. Ft.
BRIDGE ITEMS				
S-803-A	Test Pile	2		Each
S-803-B	Conventional Static Pile Load Test	0		Each
S-803-E	12" Steel Piling	1,710		Lin. Ft.
901-S-804-A	Bridge Concrete, Class "A"	196.89		Cu. Yd.
901-S-804-C	40' Prestressed Concrete Beam, Type I+2	198.75		Lin. Ft.
901-S-804-C	80' Prestressed Concrete Beam, Type III	398.75		Lin. Ft.
S-805-A	Reinforcement	32,749		Lb.
S-813-A	Concrete Railing	320		Lin. Ft.
S-815-A	Loose Riprap, 300 lb.	79		Ton
S-815-E	Geotextile Under Riprap, Type V, AOS 0.21-0.43	170		Sq. Yd.
① Includes 100 S.Y. Estimated To Be Used As Directed For Erosion Control				
Cementitious Material Exposure to Sulfates Is Negligible.				
Note: If sulfates are present on the project, add a "bubble" note,    to each concrete pay item showing required cementitious material per 901-S-701.01.				
		PREPARED BY _____ COUNTY ENGINEER DATE		
INDEX				
SHEET NO.	TITLE	SHEET NO.	TITLE	
1	Title Sheet	270	Right-Of-Way Markers	
2	Quantity & Index Sheet	271	Rural Driveways	
2-A	Typical Section Sheet, Alt. 1	300	Pipe Culvert Installation	
2-B	Typical Section Sheet, Alt. 2	301	Pipe Collar - Concrete	
2-C	Schedule Sheet	302	Junction Box For Pipe Culverts	
2-D	Schedule Sheet	305	Branch Connections	
2-E	Intersection & Turnout Detail Sheet	328	Flared End Section For Concrete Pipe	
2-F	Detail Sheet	329	Flared End Section For Concrete Arch Pipe	
2-G	Striping Detail & Traffic Sign Sheet			
2-H	Traffic Control Plan			
I	Bridge Layout	366.1	Box Culvert Drawing-Barrel Joint	
II	Bridge Riprap Detail And Soil Boring Sheet		Locations-Normal And Skewed Culverts	
SA-PSM-1	Pavement Striping & Marking Details	371.1, 371.2	Basic Culvert Drawing - Single Cell	
SA-SE-2	Superelevation Transition		Height - 8 Ft., Span 8-20 Ft.	
SA-TSP-1	Traffic Sign Placement	374, 375.1, 375.2	Wings With 3:1 Slope For Basic Culvert Drawing,	
140	Erosion Control		Single Cell, Heights 6-12 Ft, Spans 6-24 Ft	
142	Typical Temporary Erosion Control Measures (Silt Fence, Hay Bales & Brush Barrier)	400.1, 400.2	Box Culvert Drawing - 30' Skew Details	
			Wings With 3:1 Slope, Single & Double Cell Culverts	
180	Guard Rail: "W" Beam (Wood Posts)			
181	Guard Rail: Thrie Beam (Wood Posts)	E-28-40(1)-09	40' Prestressed Concrete Span Details	
182	Guard Rail: "W" Beam (Steel Posts)	E-28-40-PS-09	40' Prestressed Concrete Beam Details	
183	Guard Rail: Modified Thrie Beam (Steel Posts)	E-28-80(1)-09	80' Prestressed Concrete Span Details	
190	Guard Rail: Bridge End Section Type "I" (Wood Posts)	E-28-80-PS-09	80' Prestressed Concrete Beam Details	
191	Guard Rail: Bridge End Section Type "I" (Steel Posts)	E-28-40(2)-09	End Bent - 40' Prestressed Conc. Beam Span	
195	Guard Rail: Typical Installation At Bridge	E-28-80(4)-09	Dbl. Pile Bent - 40,60, & 80 Ft. Prestressed	
	Approaches For 2-Lane, 2-Way Highway		Beam Spans	
259	Highway Sign And Barricade Details For	R-99	Railing Details	
	Construction Projects			
		3-6	Plan/Profile Sheets	
		4-A	Relocated County Road Plan/Profile	

RATES OF APPLICATION USED FOR ESTIMATING QUANTITIES

ITEM	RATE
Polymerized-Emulsified Asphalt (CRS-2P)	0.90 Gal. /Sq. Yd.
Cover Aggregate (Size 56)	0.52 Cu. Ft. /Sq. Yd.
Seal Aggregate (Size 7)	0.28 Cu. Ft. /Sq. Yd.
Agricultural Limestone	2.0 Tons /Acre
Commercial Fertilizer (13-13-13)	1.0 Ton/Acre
Ammonium Nitrate	200 Lbs. /Acre
Vegetative Materials For Mulch	2.0 Tons /Acre
Portland Cement	8% By Volume
Granular Material (Class 9, Group "B") (LVM)	173 Cu. Yd./Station
Blotter Material (LVM)	0.04 Cu. Ft./Sq. Yd.

NOTE: The Ammonium Nitrate Is To Be Applied After Grass Growth Is Established.



TOE DITCH DETAIL

Req'd. Where Natural Ground Slopes Toward Embankment

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION
(2007) ADT = 110 Current
(2012) ADT = 117 n Year
(2027) ADT = 143 Design
DHV = 21
D = 50 % of DHV
T = 10 % of DHV
T (Total) = 10 % of ADT
18k (Flex) = 675/1000
18k (Rigid) = 0/1000
CBR = 11

REQUIRED STRUCTURE NUMBER

	2027	2012
ADL	4	4
CBR	11	11
SSV	4.85	4.85
PT	2.5	2.5
SN	1.916	1.472

TYPICAL GRADE, DRAIN, BASE & SURFACING SECTION

ALTERNATE No. 1, CEMENT TREATED GRANULAR BASE
Sta. 208+33 To Sta. 286+59, Mainline
Sta. 10+00.00 To Sta. 15+32.75, Relocated County Road
N.T.S.

- ① 20' Wide Double Bituminous Surface Treatment Required
- ② Soil-Cement-Water Mixing Req'd. (22' Wide) Portland Cement Shall Be Incorporated Into The Top 6" Of Granular Material (Class 9, Group B). Cement Percentage (8% By Volume Estimated), Proper Moisture Content And Approximate Density To Be Determined By A State Aid Approved Laboratory From Soil Analysis Taken From Granular Material Placed On Roadway.
- ③ Granular Material (Class 9, Group B) Required
- ④ Subgrade

GENERAL NOTES

Erosion and sediment control measures are to be applied on disturbed areas indicated (www) or as required by the Storm Water Pollution Prevention Plan.

Clearing and grubbing of construction easements shall be considered as normal right-of-way and paid for by lump sum.

Before final acceptance, the entire right-of-way shall be mowed by the contractor at no cost to the project.

SCHEDULE OF STRUCTURE THICKNESS

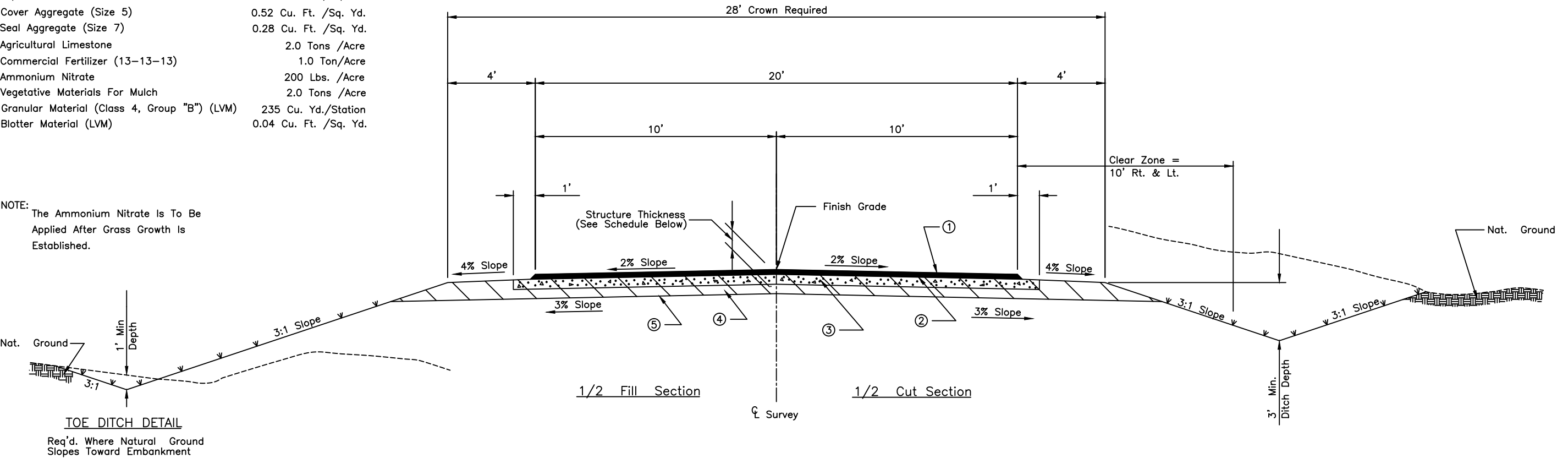
STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	SUBBASE THICKNESS		BASE COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN
208+33 - 286+59 & 10+00 - 15+32.75 (Relocated County Road)	11	4.85	4	1.47	6.0	0.54	6.0	1.02	0	0	12.0	1.56

NOTE: SUBGRADE CBR IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS DETERMINED AFTER GRADING AND BEFORE PLACING BASE MATERIAL.

RATES OF APPLICATION USED FOR ESTIMATING QUANTITIES

ITEM	RATE
Polymerized-Emulsified Asphalt (CRS-2P)	0.90 Gal. /Sq. Yd.
Asphalt For Prime Coat	0.35 Gal. /Sq. Yd.
Cover Aggregate (Size 5)	0.52 Cu. Ft. /Sq. Yd.
Seal Aggregate (Size 7)	0.28 Cu. Ft. /Sq. Yd.
Agricultural Limestone	2.0 Tons /Acre
Commercial Fertilizer (13-13-13)	1.0 Ton/Acre
Ammonium Nitrate	200 Lbs. /Acre
Vegetative Materials For Mulch	2.0 Tons /Acre
Granular Material (Class 4, Group "B") (LVM)	235 Cu. Yd./Station
Blotter Material (LVM)	0.04 Cu. Ft. /Sq. Yd.

NOTE: The Ammonium Nitrate Is To Be Applied After Grass Growth Is Established.



FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION
(2007) ADT = 110 Current (2012) ADT = 117 n Year (2027) ADT = 143 Design DHV = 21 D = 50 % of DHV T = 10 % of DHV T (Total) = 10 % of ADT 18k (Flex) = 675/1000 18k (Rigid) = 0/1000 CBR = 11

REQUIRED STRUCTURE NUMBER			
2027		2012	
ADL	4	ADL	4
CBR	11	CBR	11
SSV	4.85	SSV	4.85
PT	2.5	PT	2.5
SN	1.916	SN	1.472

TYPICAL GRADE, DRAIN, BASE & SURFACING SECTION

ALTERNATE No. 2, MIXED, SHAPED, AND COMPACTED GRANULAR BASE
Sta. 208+33 To Sta. 286+59, Mainline
Sta. 10+00.00 To Sta. 15+32.75, Relocated County Road
N.T.S.

- ① 20' Wide Double Bituminous Surface Treatment Required
- ② Prime Coat Required (22' Wide)
- ③ Mixing, Shaping, & Compaction Req'd. (22' Wide) 6 in. Deep.
- ④ Granular Material (Class 4, Group B) Required
- ⑤ Subgrade

GENERAL NOTES

Erosion and sediment control measures are to be applied on disturbed areas indicated (~~XXX~~) or as required by the Storm Water Pollution Prevention Plan.

Clearing and grubbing of construction easements shall be considered as normal right-of-way and paid for by lump sum.

Before final acceptance, the entire right-of-way shall be mowed by the contractor at no cost to the project.

SCHEDULE OF STRUCTURE THICKNESS												
STATION TO STATION	ESTIMATED SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	SUBBASE THICKNESS		BASE COURSE THICKNESS		SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN
208+33 – 286+59 & 10+00 – 15+32.75 (Relocated County Road)	11	4.85	4	1.47	9.0	0.99	6.0	0.60	0	0	15.0	1.59

NOTE: SUBGRADE CBR IS ESTIMATED ONLY. A SUBGRADE SOIL PROFILE WILL BE PREPARED AND THE CBR AND THE REQUIRED BASE STRUCTURE THICKNESS DETERMINED AFTER GRADING AND BEFORE PLACING BASE MATERIAL.

BOX CULVERT SCHEDULE										
Sheet No.	Station	Size	State Standards	Length	Class "B" Conc.	Reinf.	"T"	"V"	"Z"	Remarks
4	223+09	16' x 8'	366.1, 371.1, 371.2, 374	65	183.80	25,936	13	11	22	30' Lt. Fwd.
			375.1, 375.2, 400.1, 400.2							
Total					183.80	25,936				
Units				Ft	Cu Yd	Lb	In	In	Ft	

CONC. PAVED DITCH SCHEDULE						
Sheet No.	Station – Station	Side	Width	Length	Toe Wall	Total
5	257+00 – 357+00	LT.	6.0	100.0	0.30	8.11
5	257+00 – 357+00	RT.	6.0	100.0	0.30	8.11
	TOTALS					16.22
	UNITS		feet	feet	cubic yards	cubic yards

CULVERT HYDRAULIC DESIGN SUMMARY																
SH. NO.	STATION	D. A. Acres	CULVERT SIZE	UPSTREAM FLOWLINE ELEVATION (feet)	DESIGN STORM (Q25) (25–YEAR STORM)				BASE STORM (Q100) (100–YEAR STORM)				STORM OF RECORD			REMARKS
					DISCHARGE cfs	* HEADWATER CONTROL IN/OUT			DISCHARGE cfs	* HEADWATER CONTROL IN/OUT			DATE OCCURRED	DISCHARGE cfs	HIGH WATER ELEVATION	
						HW/D	HW (DEPTH)	HW (ELEV.)		HW/D	HW (DEPTH)	HW (ELEV.)				
3	208+62	6	24"	335.05	20	1.55	3.10	338.15	26	1.90	3.80	338.85	Not Available			C= <u>0.37</u> I = <u>9.0</u> in./hr.
4	212+50	300	88" X 54"	326.00	298	1.43	6.44	332.44	381	2.00	9.00	335.00	1972	450	338.00	S= <u>6.29</u> Ft/Mi L= <u>1.89</u> Mi
4	223+09	1625	16' X 8'	326.00	1020	0.95	7.60	333.60	1313	1.30	10.40	336.40	1927	1313	336.40	S= <u>4.27</u> Ft/Mi L= <u>3.16</u> Mi
4–A	238+00	7	24"	341.20	24	1.60	3.20	344.40	29	2.10	4.20	345.40	Not Available			C= <u>0.37</u> I = <u>9.0</u> in./hr.
5	256+97	125	73" X 45"	333.70	175	1.49	5.59	339.29	220	2.25	8.44	342.14	1962	275	345.25	S= <u>4.40</u> Ft/Mi L= <u>0.85</u> Mi
6	281+29	64	48"	330.00	125	1.65	6.60	336.60	155	1.85	7.40	337.40	Not Available			S= <u>5.00</u> Ft/Mi L= <u>0.43</u> Mi

* Headwater Elevation Values Shown Are Theoretical And May Vary From Actual Conditions.

PIPE SCHEDULE													
STATION	CONC. PIPE, CLASS III				CONC. F.E.S. REQ'D.			CONC. ARCH PIPE, CLASS III		CONC. ARCH PIPE F.E.S REQ'D.		CLASS "B" CONC., MINOR STRUCT.	REMARKS
	15"	18"	24"	48"	18"	24"	48"	73" X 45"	88" X 54"	73" X 45"	88" X 54"		
208+62		32			1.0							0.063	EXTEND EXIST. R.C.P. RT., TOE WALL REQ'D.
211+30	32												SIDEDRAIN RT.
212+50									56		2.0	0.207	CROSS DRAIN, TOE WALL REQ'D.
214+50	32												SIDEDRAIN RT.
220+80			32										SIDEDRAIN RT.
221+60	32												SIDEDRAIN LT.
222+75			56			1.0						0.493	TIE INTO WING LT, PIPE COLLAR, BRANCH CONN., AND TOE WALL REQ'D.
223+07			8										TIE INTO JB – 1 RT., BRANCH CONNECTION REQ'D.
223+43			56			1.0						0.083	TIE INTO JB – 1 RT., TOE WALL REQ'D.
224+40			32										SIDEDRAIN LT.
228+88			32										SIDEDRAIN RT.
232+90		32											SIDEDRAIN RT.
233+35		32											SIDEDRAIN RT.
238+00			56			2.0						0.083	CROSS DRAIN, TOE WALL REQ'D.
244+70	32												SIDEDRAIN LT.
250+65		32											SIDEDRAIN LT.
256+97								56		2.0		0.167	CROSS DRAIN, TOE WALL REQ'D.
260+10	32												SIDEDRAIN RT.
272+40		32											SIDEDRAIN RT.
273+23		40			2.0							0.063	SIDEDRAIN RT.
279+08	32												SIDEDRAIN RT.
281+29				48			2.0					0.145	CROSS DRAIN, TOE WALL REQ'D.
284+85	32												SIDEDRAIN RT.
TOTALS	224.0	200.0	272.0	48.0	3.0	4.0	2.0	56.0	56.0	2.0	2.0	1.304	
UNITS	feet	feet	feet	feet	each	each	each	feet	feet	each	each	cubic yards	

PORTLAND CEMENT EXPOSURE TO SOLUBLE SULFATES IS **NEGLECTIBLE**

MODIFY THIS NOTE AS REQUIRED BY CONDITIONS FOR SEAWATER, MODERATE, OR SEVERE SULFATES PER 901-S-701.01.

IF YOU DO NOT DESIRE TOE WALLS AS PER STD. NO. 328 AND 329, DELETE THE COLUMN FOR CONC., MINOR STRUCTURES AND ADD A NOTE UNDER THE PIPE SCHEDULE STATING THAT TOE WALLS ARE NOT REQUIRED.

RAMP SCHEDULE						
Sheet No.	Station	Side	Width (feet)	Paved Apron Area	Alt. No. 1 Gran. Mat'l. (Cl.4, Gp.B)	Alt. No. 2 Gran. Mat'l. (Cl.4, Gp.B)
3	209+15	LT.	50.00	25.30	54	63
4	211+30	RT.	20.0	11.97	17	20
4	214+50	RT.	20.0	11.97	17	20
4	220+80	RT.	20.0	11.97	17	20
4	221+60	LT.	20.0	11.97	17	20
4	223+43	RT.	20.0	11.97	17	20
4	224+40	LT.	20.0	11.97	17	20
4	228+88	RT.	20.0	11.97	17	20
4	232+90	RT.	20.0	11.97	17	20
4	233+35	RT.	20.0	11.97	17	20
5	244+70	LT.	20.0	11.97	17	20
5	250+65	LT.	20.0	11.97	17	20
5	260+10	RT.	20.0	11.97	17	20
5	261+60	LT.	20.0	11.97	17	20
6	272+40	RT.	20.0	11.97	17	20
6	276+50	LT.	20.0	11.97	17	20
6	277+80	RT.	20.0	11.97	17	20
6	279+08	RT.	20.0	11.97	17	20
6	284+85	RT.	20.0	11.97	17	20
6	286+13	RT.	20.0	11.97	17	20
TOTALS				252.73	377	443
UNITS				square yards	cubic yards	cubic yards

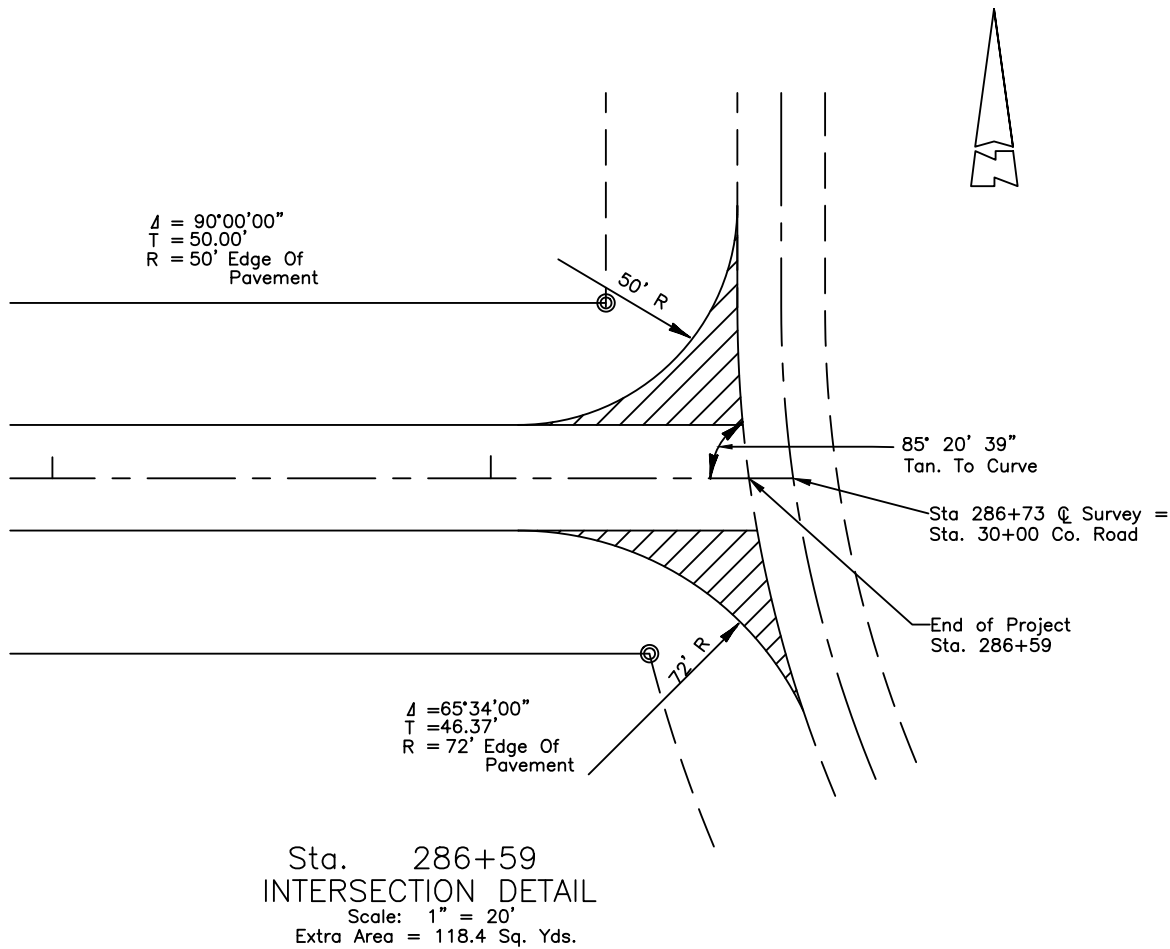
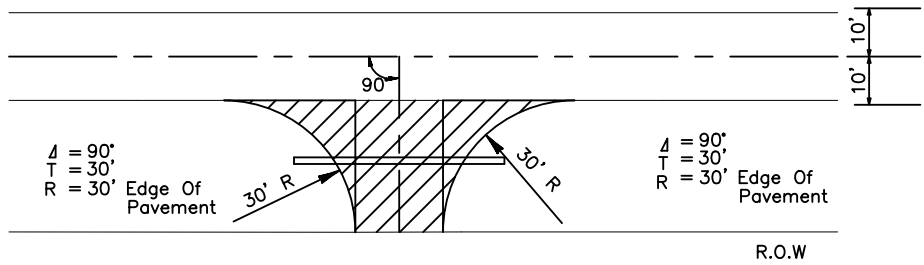
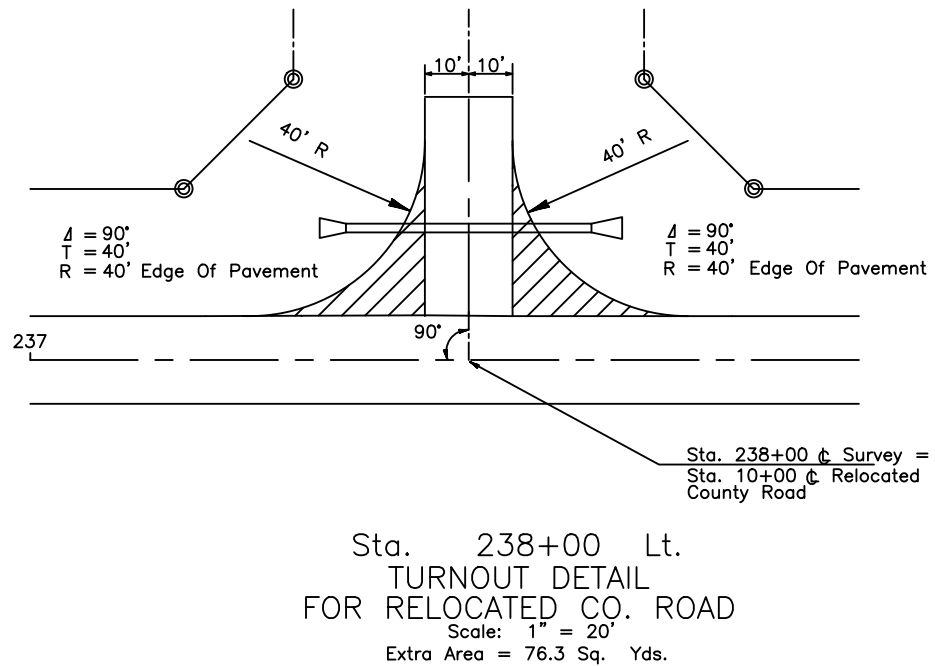
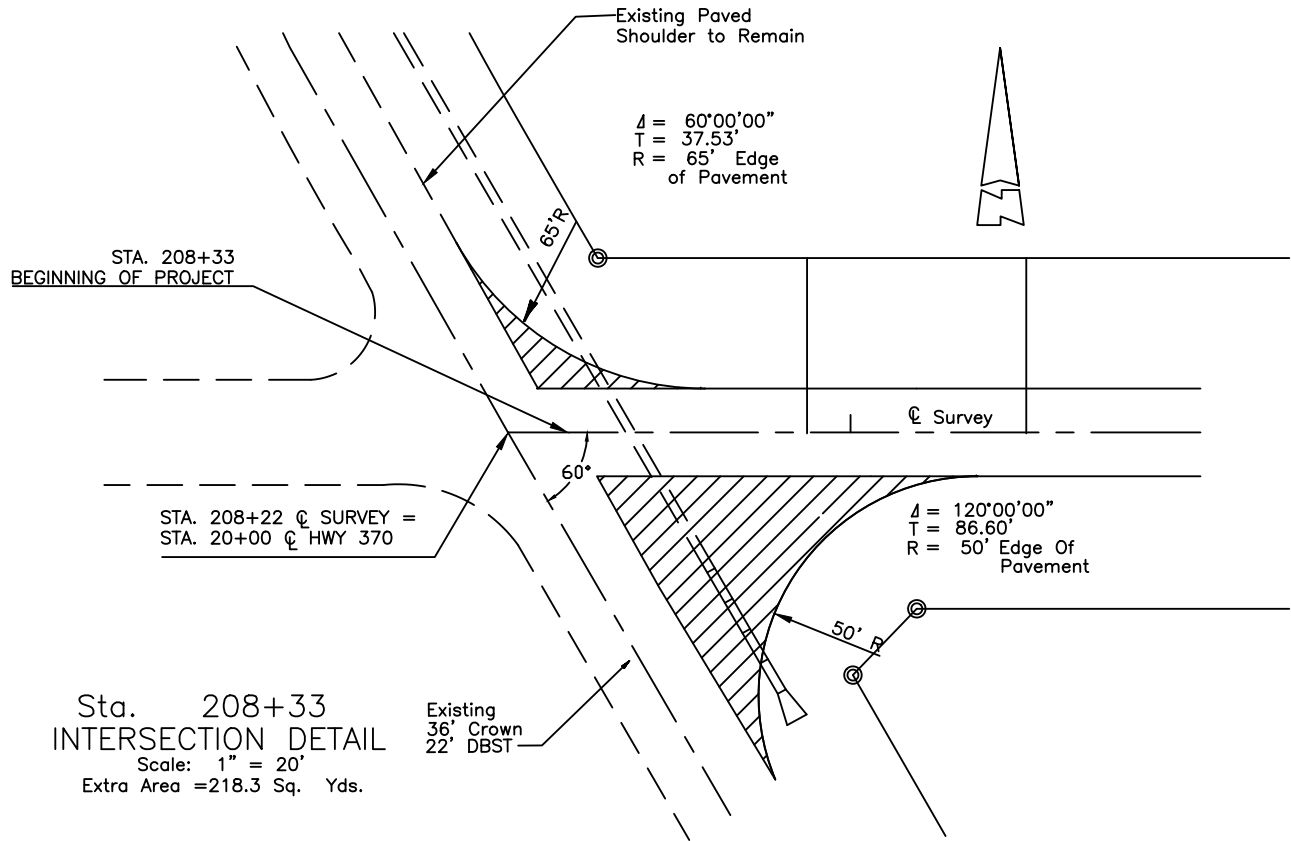
SOLID SOD SCHEDULE					
Sheet No.	Station – Station	Side	Width	Length	Area
4	211+90 – 212+40	LT.	6.0	50.00	33.33
4	211+90 – 212+40	RT.	6.0	50.00	33.33
4	212+60 – 213+10	LT.	6.0	50.00	33.33
4	212+60 – 213+10	RT.	6.0	50.00	33.33
5	257+00 – 357+00	LT.	2.0	100.00	44.44
5	257+00 – 357+00	RT.	2.0	100.00	44.44
6	270+00 – 270+74	RT.	6.0	74.00	49.36
TOTALS					271.56
UNITS			feet	feet	square yards

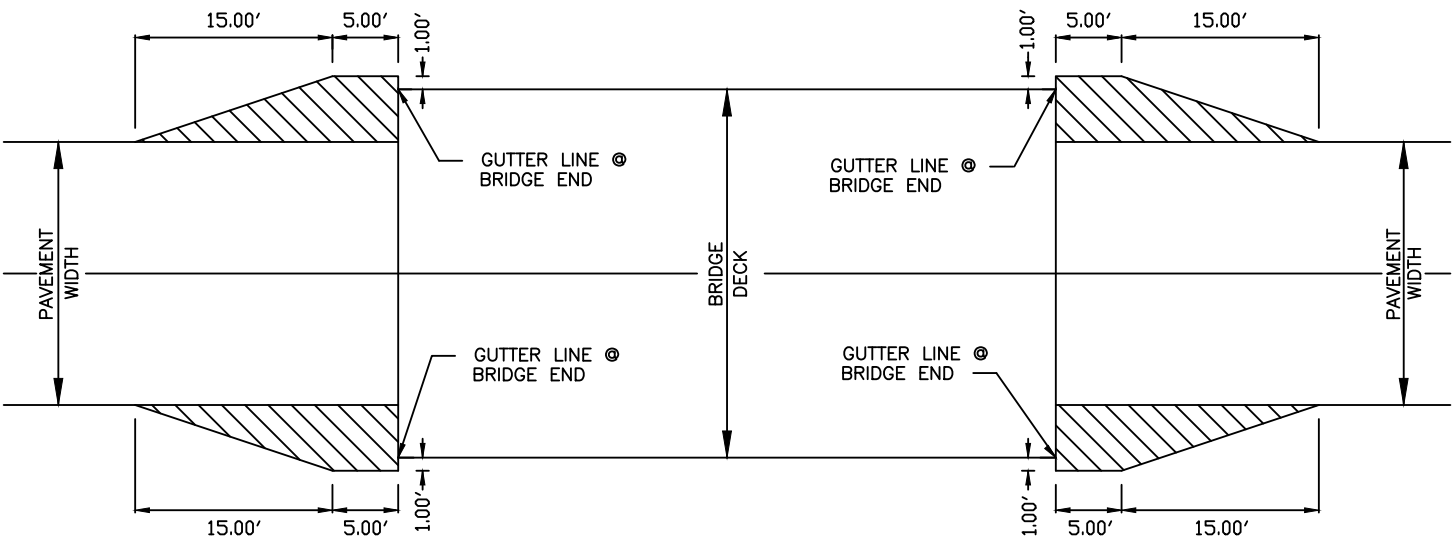
TEMPORARY SILT FENCE SCHEDULE			
Sheet No.	Station – Station	Side	Length
4	210+00 – 215+00	RT. & LT.	1000
4	221+00 – 229+00	RT. & LT.	1600
5	254+00 – 258+00	RT. & LT.	800
5	267+00 – 268+40	RT. & LT.	280
5-6	269+00 – 274+00	RT. & LT.	1000
6	279+00 – 286+00	RT. & LT.	1400
TOTALS			6080
UNITS			feet

ESTIMATED GRANULAR MATERIAL REQ'D.		
Area	Alternate No. 1 Granular Material (Cl. 9, Gp. B) (LVM)	Alternate No. 2 Granular Material (Cl. 4, Gp. B) (LVM)
Roadway	13,262.2	18,015.10
Intersections and Turnouts	261.3	326.6
Ramps	See Ramp Schedule	443
Bridge Approaches	306.6	383.46
Extra Area In Curves	61.4	76.84
Relocated County Road	704.1	899.46
Project Total	14,595.6	20,144.46
Units	cubic yards	cubic yards

JUNCTION BOX SCHEDULE																				
Sheet No.	Station	J.B. No.	Side 1	Side 2	Side 3	Side 4	Side W1-3	Side W2-4	Inlet Height	Cl. "B" Conc.	Rein. Steel	Bar List								
			SZ./SK.	SZ./SK.	SZ./SK.	SZ./SK.						A1	A2	A3	A4	B	C	D	E	F
4	223+12	JB-1	24/0	0/0	24/45	0/0	5.29	2.50	3.50	1.10	78.83	2Ø37	0	2Ø37	0	2Ø57	2Ø24	4Ø36	16Ø26	8Ø59
		TOTAL								1.10	78.83									
		UNITS	in	in	in	in	feet	feet	feet	cubic yards	lb	inches	inches	inches	inches	inches	inches	inches	inches	inches

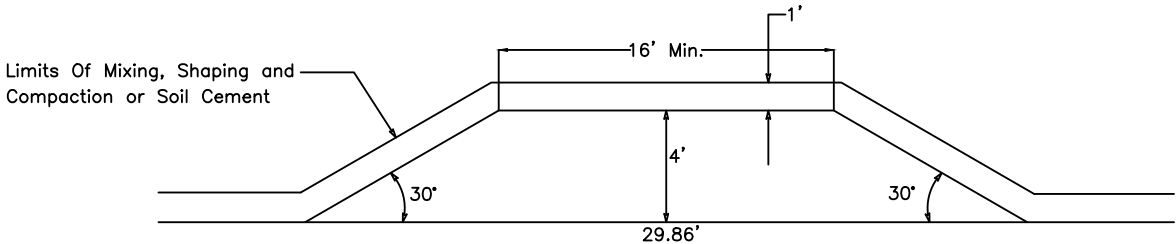
BASE AND SURFACING SCHEDULE												
BASE						SURFACING						
Area	Alternate No. 1		Alternate No. 2		Surfacing Area	Alternate No. 1			Alternate No. 2			Blotter Material
	Soil-Cement Water Mixing	Portland Cement	Mixing-Shaping Compaction	Prime Coat		Asphalt Cement (CRS-2P)	Cover Aggregate Size 56	Cover Aggregate Size 7	Asphalt Cement (CRS - 2P)	Cover Aggregate Size 5	Cover Aggregate Size 7	
Roadway	18,739.11	6341.32	18,739.11	6,558.69	17,035.56	15,332.0	328.09	176.66	15,332.0	328.09	176.66	25.24
Intersections and Turnouts	522.60	176.85	522.60	182.93	522.60	417.2	9.75	5.25	417.2	9.75	525	0.75
Ramps (20)	252.73	85.52	252.73	88.46	252.73	227.5	4.87	2.62	227.5	4.87	2.62	0.37
Bridge Approaches	31.00	10.48	31.00	10.85	31.00	27.9	0.60	0.32	27.9	0.60	0.32	0.04
Extra Area In Curves	122.93	41.59	122.93	43.03	122.93	110.6	2.37	1.28	110.6	2.37	1.28	0.18
Relocated County Road	1,302.28	440.69	1,302.28	455.80	1183.89	1065.5	22.80	12.28	1065.5	22.80	12.28	1.75
Project Total	21,970.65	7,096.45	21,970.65	7,339.76	19,148.71	17,170.70	368.48	198.41	17,170.7	368.48	198.41	28.33
Units	square yards	cwt	square yards	gallons	square yards	gallons	cubic yards	cubic yards	gallons	cubic yards	cubic yards	cubic yards





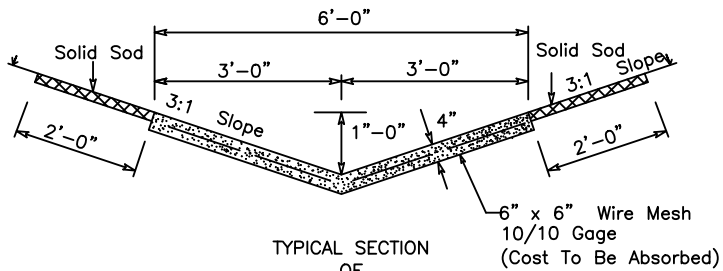
PAVING TREATMENT AT BRIDGE ENDS

Extra Area 31 sq. yd.

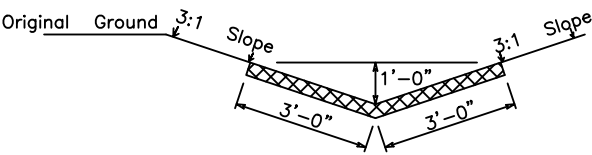
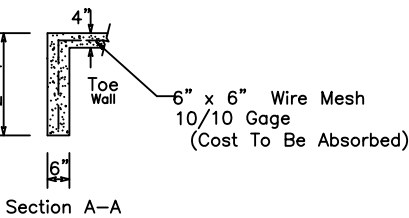
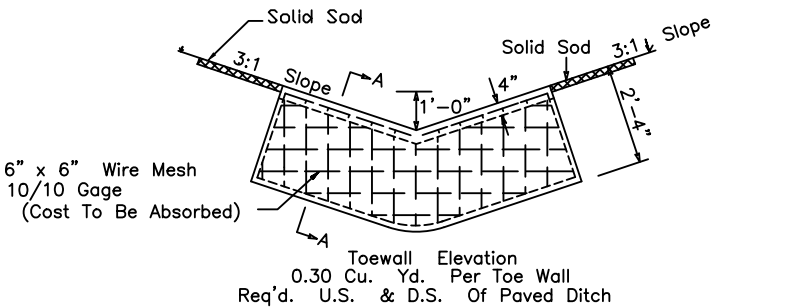


TYPICAL PAVED APRON DETAIL

10.2 SQ. YD. EXTRA AREA PER 16' RAMP
11.97 SQ. YD. EXTRA AREA PER 20' RAMP



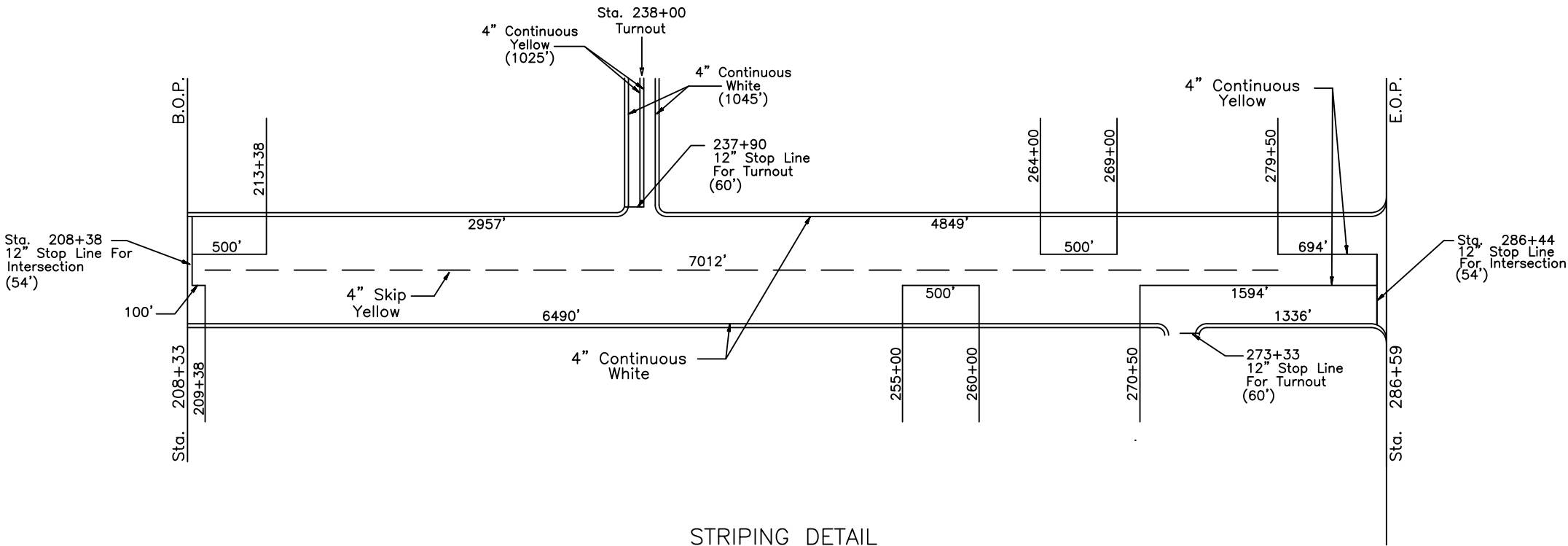
0.0781 CU. YD. CONC. PER LIN. FT.
0.444 SQ. YD. SOLID SOD PER LIN. FT.



0.667 SQ. YD. SOLID SOD PER LIN. FT.

TRAFFIC SIGNS REQ'D

Station	Type	Remarks	Side
208+53	R1-1	Stop Sign	Lt.
213+28	W3-1	Stop Ahead Sign	Lt.
235+00	W2-2	Side Road Lt.	Rt.
237+80	R1-1	Stop Sign	Lt.
15+00	W3-1	Stop Ahead Sign (Relocated Co. Road)	Lt.
238+00	W1-7	Large Arrow (two directions)	Rt.
241+00	W2-2	Side Road Rt.	Lt.
267+89	OM-3L	Object Marker	Lt.
267+89	OM-3R	Object Marker	Rt.
269+51	OM-3R	Object Marker	Lt.
269+51	OM-3L	Object Marker	Rt.
270+90	W2-2	Side Road Rt.	Rt.
273+23	W1-7	Large Arrow (two directions)	Lt.
273+33	W3-1	Stop Ahead Sign	Rt. 450'
273+33	R1-1	Stop Sign	Rt.
276+25	W2-2	Side Road Lt.	Lt.
281+96	W3-1	Stop Ahead Sign	Rt.
286+46	R1-1	Stop Sign	Rt.
286+85	W1-7	Large Arrow (two directions)	CL
Total Signs			
11	Warning Signs Req'd.		
4	Regulatory Signs Req'd.		
4	Hazard Signs Req'd.		



STRIPING DETAIL

N.T.S.
85 Percentile Speed = 55 MPH
Minimum Passing Sight Distance = 900 Ft.

Skip Yellow = 1.328 Mi.
Continuous White = 16,677 Lin. Ft.
Continuous Yellow = 4913 Lin. Ft.
Detail Traffic Stripe = 228 Lin. Ft.

CONSTRUCTION NOTES:

1. AFTER ALL CONSTRUCTION IS COMPLETE, INCLUDING THE INSTALLATION OF GUARDRAILS, COMPLETE IN PLACE, BUT PRIOR TO STRIPING, THE ENTIRE PROJECT SHALL BE OPENED TO ALL TRAFFIC.
2. WHENEVER PAVEMENT CONSTRUCTION HAS PROGRESSED SUFFICIENTLY TO PERMIT TRAFFIC MOVEMENT THAT IS UNRESTRICTED BY CHANNELIZING OR OTHER TRAFFIC CONTROL METHODS, TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED PER S-619.08. THE CONTRACTOR SHALL REPLACE RAISED PAVEMENT MARKERS AS NECESSARY. IF MORE THAN ONE BITUMINOUS LIFT IS REQUIRED, THE TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED AND MAINTAINED IN A LIKE MANNER AFTER EACH LIFT. THE TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED PRIOR TO THE APPLICATION OF THE SEAL COAT. THIS WORK IS NOT A SEPARATE PAY ITEM BUT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PAYMENT FOR PAY ITEM NO. S-618-A, "MAINTENANCE OF TRAFFIC".

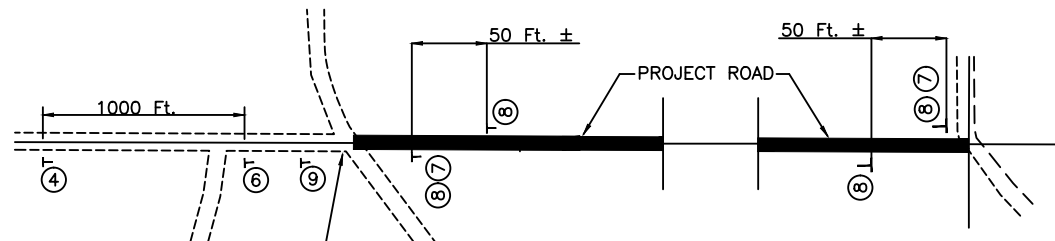
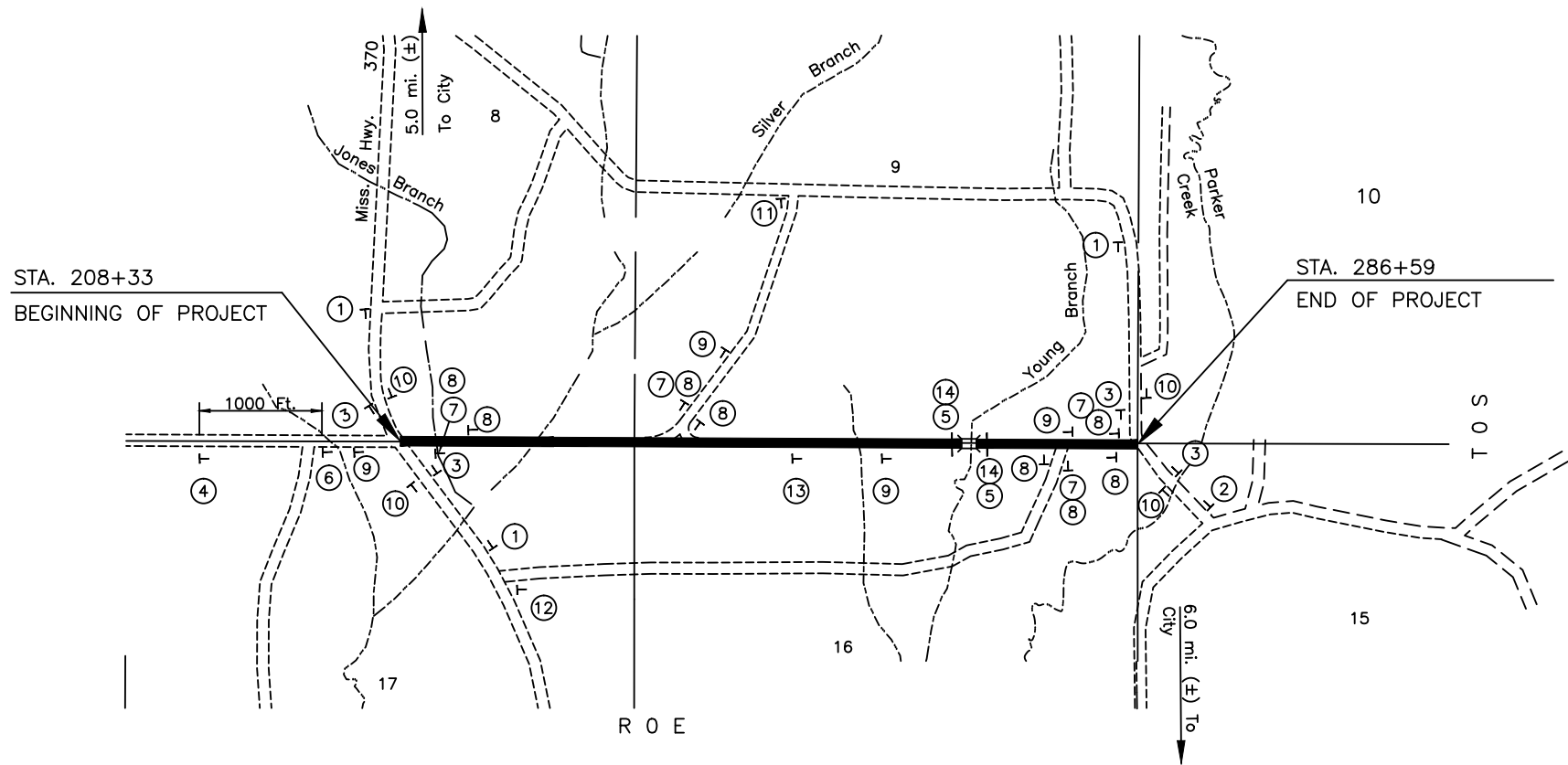
3. PRIOR TO OPENING THE PROJECT TO TRAFFIC, R4-1 "DO NOT PASS" OR R4-2 "PASS WITH CARE" SIGNS SHALL BE INSTALLED ON THE RIGHT HAND SIDE OF THE ROAD AT THE B.O.P. AND THE E.O.P. AND THE BEGINNING AND THE END OF THE NO-PASSING ZONES AND W14-3 SIGNS ON THE LEFT HAND SIDE OF THE ROADWAY IN ACCORDANCE WITH THE PERMANENT STRIPING SCHEDULE IN THE PLANS. THIS WORK IS NOT A SEPARATE PAY ITEM BUT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PAYMENT FOR PAY ITEM NO. S-618-A, "MAINTENANCE OF TRAFFIC".

DURING STRIPING OPERATIONS:

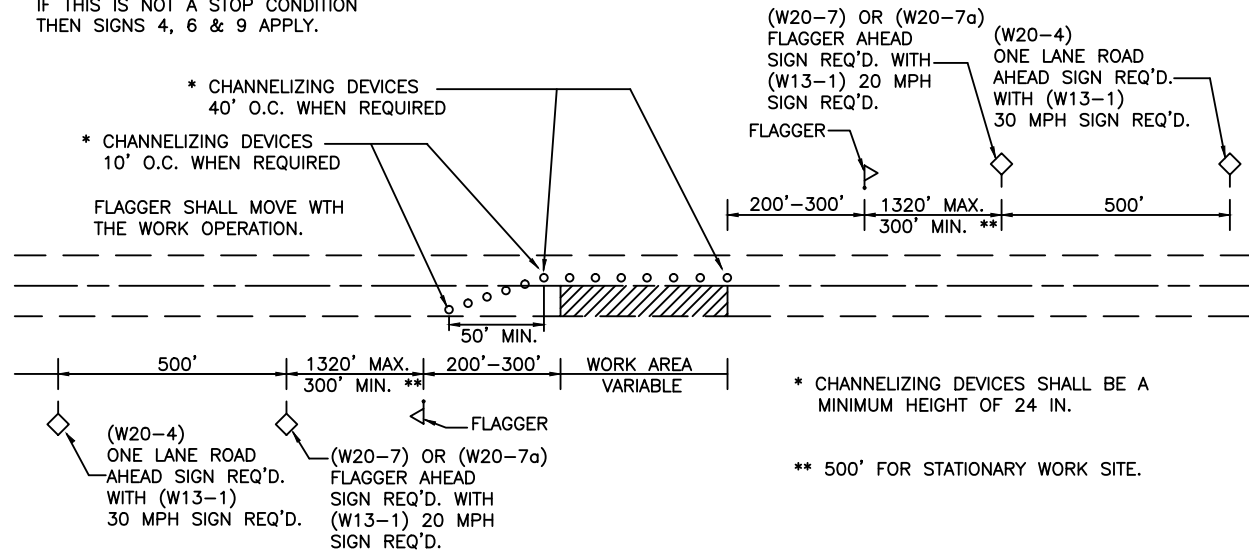
4. A SHADOW VEHICLE SHALL BE POSITIONED APPROXIMATELY 300 FEET IN FRONT OF AND BEHIND PAINTING OPERATIONS.
5. THE SHADOW VEHICLE SHALL CARRY A SIGN "ROADWAY STRIPING AHEAD". BOTTOM OF SIGN SHALL BE A MINIMUM OF SIX (6) FEET ABOVE PAVEMENT.
6. A FLASHING YELLOW LIGHT SHALL BE INSTALLED ABOVE TOP OF WARNING SIGNS.
7. A FLASHING YELLOW LIGHT SHALL BE INSTALLED ON ALL VEHICLES USED IN THE MARKING OPERATIONS.

GENERAL NOTES:

1. CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGNS, ETC., TO SAFELY CHANNEL OR DIRECT TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES (FLAGGER AHEAD SIGN REQUIRED IN ADVANCE OF FLAGGERS EXCEPT DURING BRIEF PERIODS OR EMERGENCY SITUATIONS.)
2. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND REMOVED IMMEDIATELY THEREAFTER.
3. PAY FOR INSTALLATION, MAINTENANCE AND REMOVAL OF TRAFFIC CONTROL DEVICES WILL BE MADE UNDER PAY ITEM NOS. S-618-A AND S-618-B.
4. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
5. THESE ARE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.
6. SEE STANDARD DRAWINGS 259 AND SA-TSP-1 FOR CORRECT PLACEMENT AND INSTALLATION OF BARRICADES AND SIGNS.
7. CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS SUCH AS WATCH FOR TRUCKS, TRUCKS TURNING, TRUCKS CROSSING, ETC., AND PLACE FLAGGERS AS DIRECTED BY THE COUNTY ENGINEER ALONG PUBLIC ROADS ON EACH SIDE OF BORROW PIT ENTRANCE OR CROSSING OF PUBLIC ROADS.
8. SEE SPECIAL PROVISION NO. 901-S-618-1 FOR ADDITIONAL CONTRACT REQUIREMENTS.



NOTE:
IF THIS IS A STOP CONDITION,
TAKE SIGNS NO. 4 & 6 OFF.
IF THIS IS NOT A STOP CONDITION
THEN SIGNS 4, 6 & 9 APPLY.



ONE LANE ROAD CLOSURE WHEN REQUIRED AND AS DIRECTED BY THE ENGINEER

N.T.S.

SIGN SCHEDULE		
SIGN	DESCRIPTION	
①	W20-1	ROAD WORK 1500 FT.
②	W20-1	ROAD WORK 1000 FT.
③	W20-1	ROAD WORK 500 FT.
④	W20-3	ROAD CLOSED AHEAD
⑤	R11-2a	ROAD CLOSED
⑥	R11-3a	ROAD CLOSED 1000 FT. AHEAD
	LOCAL TRAFFIC ONLY	
⑦	R11-4	ROAD CLOSED TO THRU TRAFFIC
⑧	TYPE III	BARRICADE
⑨	W20-3	ROAD CLOSED 500 FT.
⑩	G20-2a	END ROAD WORK (Optional)
⑪	R11-3a	ROAD CLOSED 3/4 MILES AHEAD
	LOCAL TRAFFIC ONLY	
⑫	R11-3a	ROAD CLOSED 1 1/2 MILES AHEAD
	LOCAL TRAFFIC ONLY	
⑬	W20-3	ROAD CLOSED 1500 FT.
⑭	TYPE III	BARRICADE ACROSS ENTIRE ROADWAY

DRAINAGE DESIGN DATA

Drainage Area	A = 22.32	Sq. Mi.
Channel Slope	S = 2.43	Ft./Mi.
Main Channel Length	L = 10.76	Mi.
Q25	= 4130	CFS
Q100	= 5422	CFS
Required Opening	= 826	Sq. Ft.
Design Opening	= 1094	Sq. Ft.

DESIGN DATA

Specifications: AASHTO LRFD Bridge Design Specifications, 4th Edition, 2007 through 2009 Interims

GENERAL NOTES

- Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
- No Unauthorized Change Of Plans Will Be Permitted.
- Test Piles Shall Be Driven As Permanent Piles At Locations Shown On The Pile Layout And will Be Paid For As Test Piles Only.
- No Payment Will Be Allowed For Excavation Incidental To Construction Of End Bents Or Pile Encasements.
- All Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.
- Piling Quantities Are Estimated Only And Shall Not Be Used To Estimate Length Of Test Pile.
- Test Pile Reports To Be Submitted To The Office Of State Aid And Approved Prior To Ordering Permanent Pile Lengths.
- All Concrete Shall Be Class "A" Concrete.
- All Exposed Steel Piling Shall Be Concrete Encased. Encasements Shall Begin A Minimum Of Three Feet Below Finished Ground And Extend To Bottom Of Cap.
- Surfaces Shall Be Finished in Accordance With Section S-804.03.19 Of The Specifications.
- No Pay Item Is Provided For Foundation Excavation And Channel Excavation For Bridges.
- Test Piles Shall Be Driven To A Minimum Bearing Of 60 Tons And A Minimum Tip Elevation of 284.00. If A Test Piling Does Not Achieve Test Pile Bearing Within Ten Feet Below Specified Test Pile Minimum Tip Elevation, The Bridge Engineer Shall Be Notified Prior To Any Further Test Piling Being Driven. After Review Of The Test Pile Report, The Bridge Engineer Will Then Determine Whether Or Not To Require A Load Test. Load Tests, When Required, Will Be Paid For As Set Forth In The Contract Documents For This Project.

Seismic Zone "1", Site Class "D".

Cementitious Material Exposure To Sulfates Is Negligible.

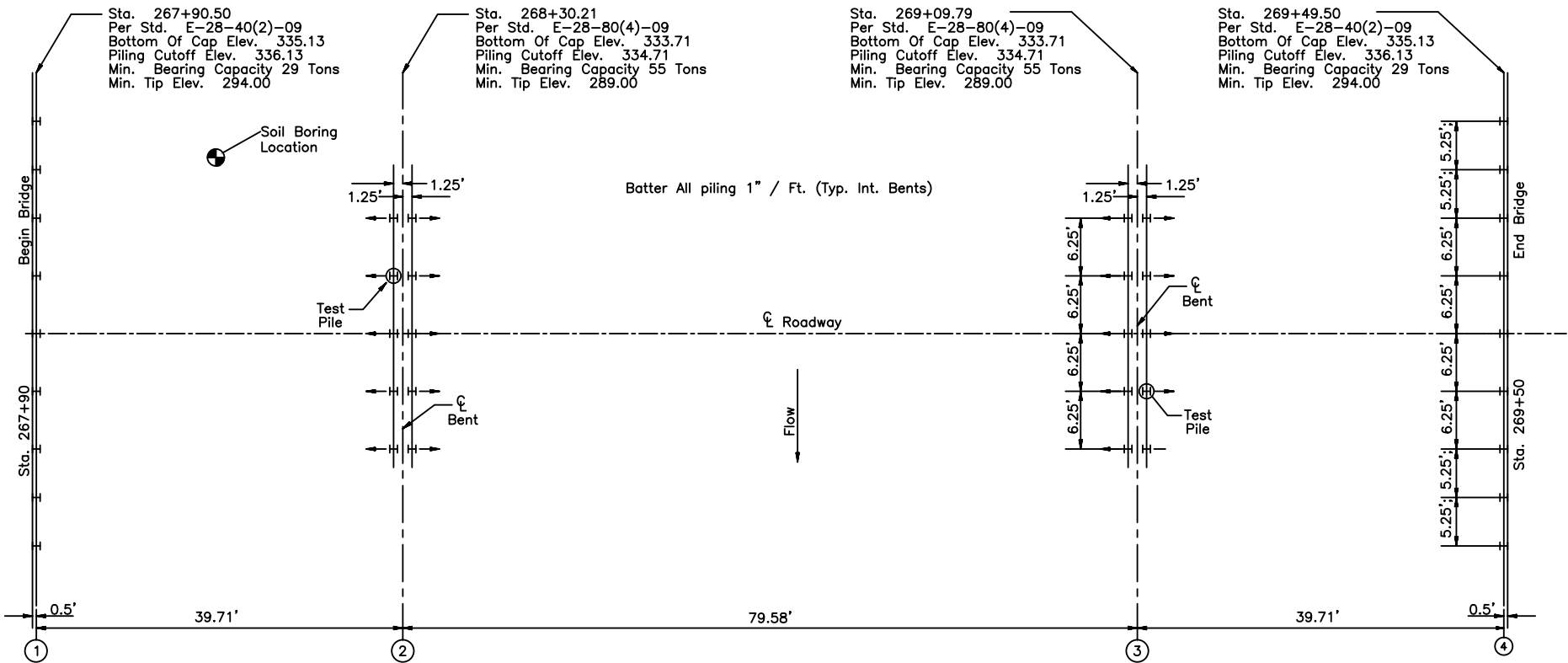
Note: Modify this note as required by conditions for Negligible, Moderate, or Severe Sulfates.

ESTIMATED BRIDGE QUANTITIES

LOCATION	Concrete Railing	Class "A" Bridge Conc.	Reinforcing Steel	40' Prest. Beam	80' Prest. Beam	12" Steel Piling	Test Piles	Loose Riprap (300 Lb.)	Geotextile
	Lin. Ft.	Cu. Yd.	Lb.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Tons	Sq. Yd.
End Bents		27.38	3,684			810		79	170
Int. Bents		26.88	3,694			900	2.0		
End Spans	160.0	67.10	12,708	198.75					
Int. Spans	160.0	64.75	12,489		398.75				
Encasement		10.78	174						
Totals	320.0	196.89	32,749	198.75	398.75	1,710	2.0	79	170

NOTE:
Final Quantities For Pile Encasement To Be Determined By Field Measurement.
Estimated Length For Piling Is Based On Minimum Tip Elevations.
Final Pay Length Will Be Approved By Bridge Engineer.

BRIDGE LAYOUT

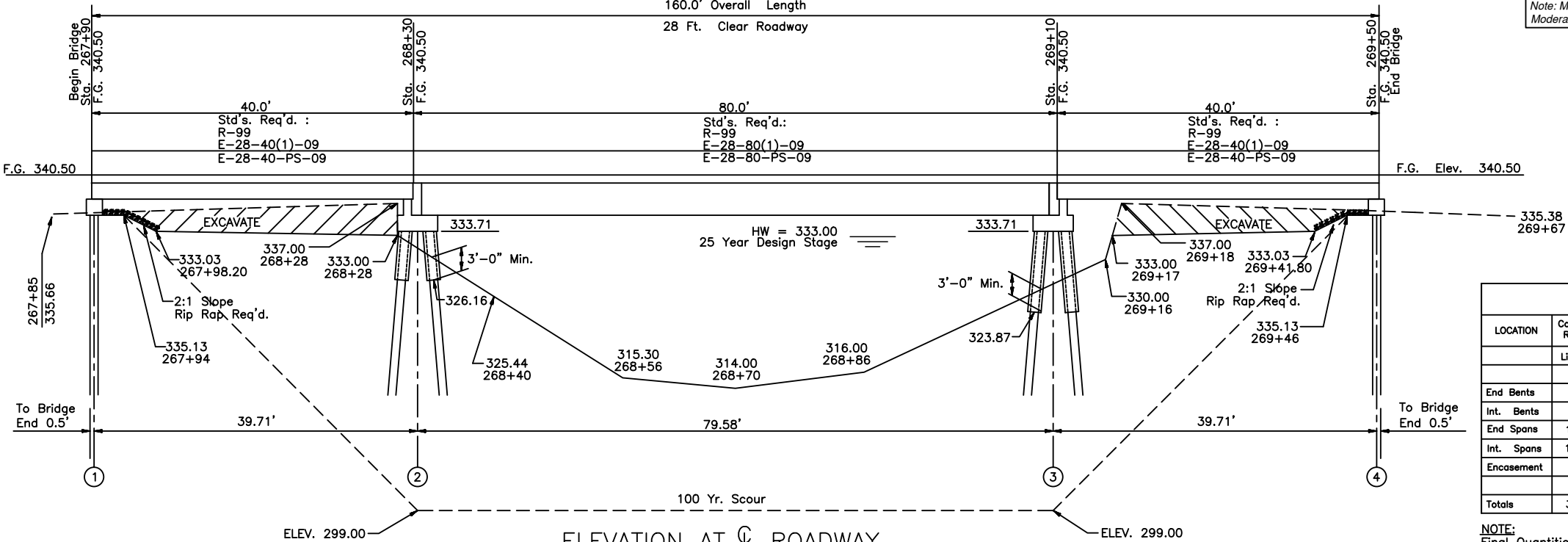


FOUNDATION PLAN

Scale: 1/8" = 1'
All Piling Shall Be HP 12 X 53 Steel Piling

1 @ 40', 1 @ 80', 1 @ 40'
Prestressed Concrete Beam Spans
160.0' Overall Length

28 Ft. Clear Roadway

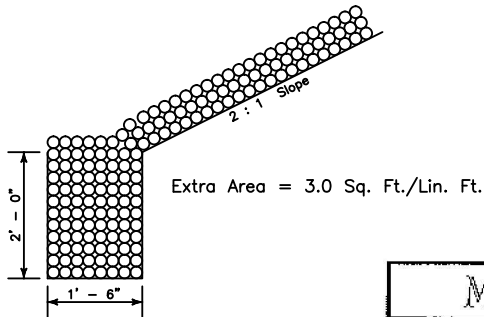


ELEVATION AT ROADWAY

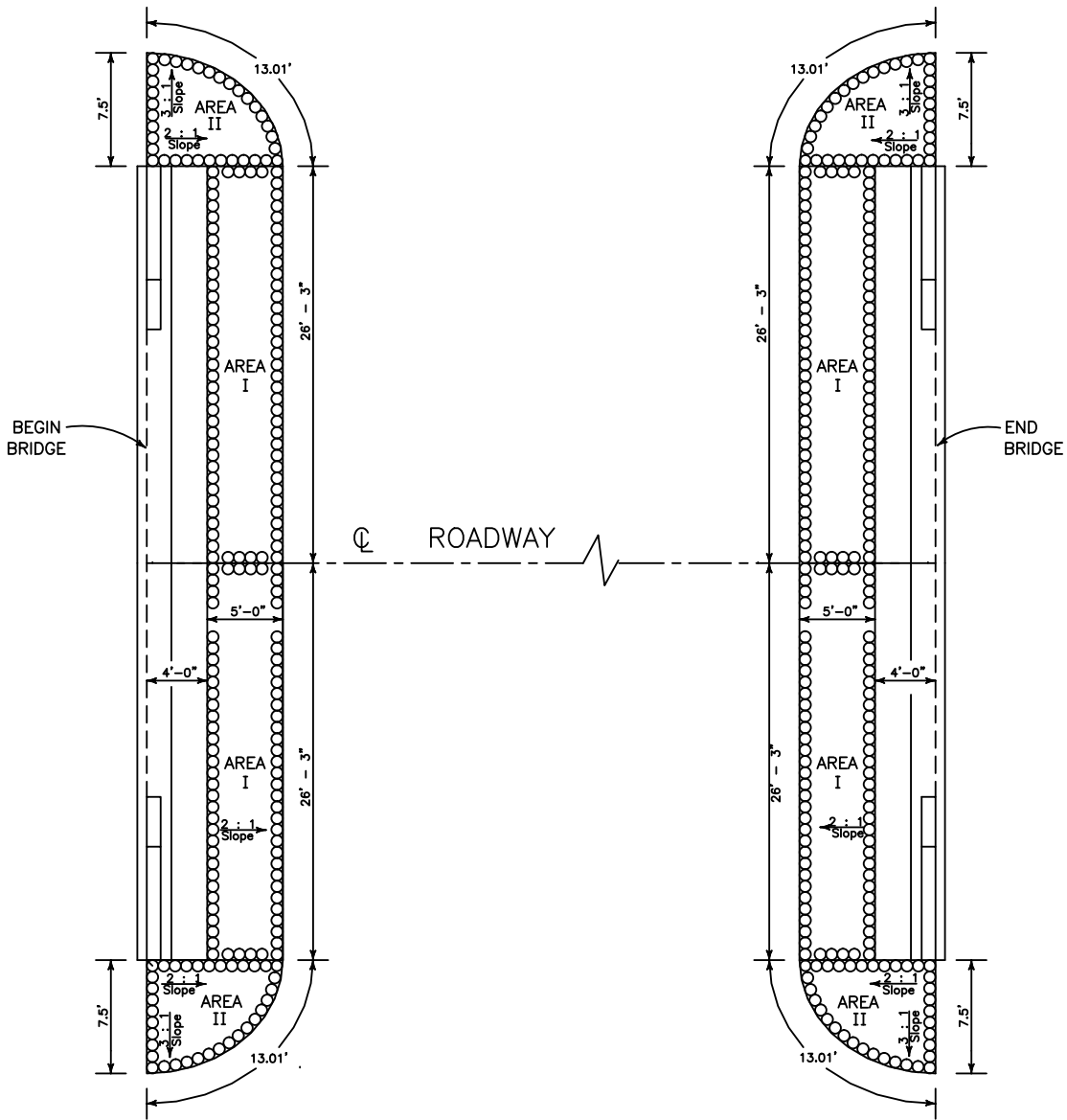
Scale: 1/8" = 1'

Riprap Calculations: For Information
Only -- Not Required On Plans.

AREA I = $2 \times 52.50' \times 5' \times \frac{\sqrt{5}}{2} = 586.97$ Sq. Ft.
AREA II = $4 \times .7854 \times 7.5 \times 9 \times \frac{\sqrt{5}}{2} \times \frac{\sqrt{10}}{3} = 249.91$ Sq. Ft.
Area For Toe Wall = Approx. 157.04 Ft. $\times 3.0$ Sq. Ft. = 471.12 Sq. Ft.
Total Area = 1308.00 Sq. Ft.
Riprap = 1308.00 Sq. Ft. $\times 120$ Lbs./Sq. Ft. + 2000 Lbs./Ton = 78.48 Tons
Total Riprap = 79 Tons



RIPRAP DETAIL AT TOE OF SLOPE



MISSISSIPPI DEPARTMENT OF TRANSPORTATION										
LOG OF BORING NO.:					PROJECT NO.: SAP-84(1)					
BORING LOG DRAWING NO.:					PROFILE DRAWING NO.:					
BORING TYPE: ROTARY WASH					COMPLETION DEPTH: 82.0'		COMP. DATE: 3-7-01			
LOGGED BY:					DEPTH TO WATER: NOT DET.			DATE: - -		
SURFACE ELEVATION: 337.0		LOCATION: STA. 268+14; 18' LT CL EXISTING ROAD								
DEPTH, FT.	SAMPLES	DESCRIPTION OF MATERIAL	ZONE	BLOWS PER FT.	UNIT DRY WT. LB/CC FT.	COHESION, KIP/SQ. FT.				ELEVATION, FT.
						1	2	3	4	
						PLASTIC LIMIT +	WATER CONTENT, %	LIQUID LIMIT +		
						20	40	60	80	
10	T	0-5' STIFF, BROWN, SILTY CLAY WITH SOME LIMONITE, ORGANICS, AND OCCASIONAL GRAVEL	EMB		96					144.4'
20	T				87					
30	T	0-25' LOOSE, BROWNISH GRAY, INTERBEDDED CLAY AND FINE SAND	1		95					134.4'
40	S			8						124.4'
50	S	0-35' MEDIUM DENSE, GRAY, VERY FINE TO FINE SAND WITH CLAUCONITE AND OCCASIONAL CLAY CLASPS		10						114.4'
60	S	0-40' SOME FINE GRAVEL		22						
70	S			29						104.4'
80	S			28						
90	S	0-58' STIFF, GRAY CLAY WITH OCCASIONAL ORGANICS	2D	29						94.4'
100	T	0-65' DENSE, GRAY, MEDIUM TO COARSE SAND WITH SOME FINE GRAVEL, OCCASIONAL CLAY CLASPS, AND ORGANICS	2A		70					84.4'
	S			42		ZONE 1 - ALLUVIUM				84.4'
	S					1' FIRM TO STIFF, BROWNISH GRAY, SILTY AND SLIGHTLY CLAYEY SILT				
	S			42		ZONE 2 - ALLUVIUM				74.4'
	S					2A' FIRM TO STIFF, DARK BRUSH GRAY, SILTY CLAY AND CLAY, CONTAINS SOME SILT LAYERS AND STRINGERS NEAR THE TOP				
	S					2B' MEDIUM DENSE TO VERY DENSE, FINE TO COARSE SAND WITH SOME FINE TO COARSE GRAVEL				84.4'
	S	0-90' DENSE, GRAY, MEDIUM TO COARSE SAND WITH FINE GRAVEL	2B	30		2C' MEDIUM DENSE, FINE TO COARSE SAND AND FINE TO COARSE GRAVEL				
	S					2D' MEDIUM DENSE, BROWN, GRAYISH, BROWN, SLIGHTLY SILTY, VERY FINE TO FINE SAND				54.4'

REV. 3/94 S: Split Spoon, T: Shelby Tube, C: Rock Core, D: Dennison Sampler

PLATE: 16

SAP-84(1) MISSISSIPPI COUNTY SHEET NO. 3



TYPICAL SECTION MAY BE SHOWN HERE OR SHOWN ON A SEPARATE SHEET FOLLOWING THE MAINLINE TYPICAL SECTION. IF THE MAINLINE AND THE RELOCATED ROAD(S) ARE THE SAME, THEN SHOW THE LIMITS ON THE MAINLINE TYPICAL SECTION.

Design Speed = 30 mph
Current ADT (2007 est) = 70

Sta. 10+30 (= Sta. 238+00 LT)			
D.A.	Relief	Ac.	Skew None
56' - 24" Pipe Req'd.			
2 - 24" FL. End Sections Req'd.			

$\Delta = 25^{\circ}44'24''$ Rt.
 $D = 9^{\circ}00'$ Rt.
 $T = 145.45'$
 $L = 286.00'$
 $E = 16.41'$
 $R = 636.62'$
 $SE = 6.4\%$
 $EW = 3.0$
Extra Area = 122.93 Sq. Yds.

See Sheet 2-A
For Typical Section

SHEET TOTAL	
Excavation	202.0 Cu.Yd.
Riprap	0.0 Ton
R.O.W. Markers	8 Each

